

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1. (currently amended): A radiation image pick-up device comprising:

a plurality of pixels disposed in a matrix, each of the pixels including ~~at least one~~ a photoelectric conversion element for converting incident radiation into electric charges;

a scanning circuit for scanning said pixels; ~~and~~

a signal output circuit for outputting signals from said pixels[[,]]; and

~~said radiation image pick-up device being characterized in that~~

a plurality of signal reading wirings through which said pixels and said signal output circuit are connected to each other ~~are provided for each pixel, a respective one of said signal reading wirings being provided for each row of the pixels arranged along a first direction of the matrix, and~~

~~in that each of said pixels wherein each of said pixels~~ includes a semiconductor element[[s]] connected to ~~each~~ a respective one of said signal reading wirings,

~~wherein each of said semiconductor element[[s]] is selected by controlling an operation of means of~~ said scanning circuit according to a radiographing mode that is being used,

and

~~each of said wherein the signal reading wiring[[s]] through which said semiconductor element is connected~~ is selected based on an actuation of ~~at least one said~~

semiconductor element ~~by said scanning circuit.~~

Claim 2. (currently amended): A radiation image pick-up device according to claim 1, ~~characterized in that~~ wherein said photoelectric conversion elements each include[[s]] a wavelength conversion member for performing wavelength conversion on incident radiation.

Claim 3. (currently amended): A radiation image pick-up device according to claim 1, ~~characterized in that the~~ wherein selection of said signal reading wirings is ~~selected~~ based on actuation of the semiconductor elements by ~~the~~ said scanning circuit according to a dosage of the radiation.

Claim 4. (currently amended): A radiation image pick-up device according to claim 3, ~~characterized in that~~ wherein at least one of said semiconductor elements is a source follower.

Claim 5. (currently amended): A radiation image pick-up device according to claim 1, ~~characterized in that~~ wherein a respective signal reading circuit is provided for each of said signal reading wirings, for reading out a signal from a corresponding one of said pixels ~~is provided to each of said signal reading wirings.~~

Claim 6. (currently amended): A radiation image pick-up device according to claim 1, ~~characterized in that~~ wherein a signal reading circuit for reading out [[a]] signals from

said pixels is provided in common ~~[[to]]~~ for said signal reading wirings.

Claim 7. (currently amended): A radiation image pick-up device according to claim 1, ~~characterized in that~~ comprising two signal reading circuits ~~are provided~~.

Claim 8. (currently amended): A radiation image pick-up method comprising:
using a device which includes
a plurality of pixels disposed in a matrix, each of the pixels including at least one photoelectric conversion element for converting incident radiation into electric charges[[]],
a scanning circuit for scanning the pixels, ~~and~~
a signal output circuit for outputting signals from the pixels, ~~the radiation image pick-up method being characterized in that and~~

a plurality of signal reading wirings through which the pixels and the signal output circuit are connected to each other ~~are provided for each pixel and~~, arranged such that each signal reading wiring corresponds to a respective row of the pixels arranged along a first direction of the matrix,

~~in that each of the pixels wherein each of the pixels~~ includes a semiconductor element[[s]] connected to ~~each~~ a respective one of the signal reading wirings, ~~and~~

wherein ~~[[an]] operation control of the selection of the~~ semiconductor element[[s]] is ~~performed~~ effected by the scanning circuit, ~~so~~ in such manner as to select[[,]] the corresponding pixel, ~~one~~ signal reading wiring for use from the plurality of signal reading wirings connecting ~~the one of the that~~ pixel[[s]] with the signal output circuit, ~~and so as to use~~

~~the selected one signal reading wiring for the one of the pixels, according to~~ a radiographing mode that is being used.

Claim 9. (currently amended): A radiation image pick-up method according to claim 8, ~~characterized in that~~ wherein the photoelectric conversion elements perform[[s]] wavelength conversion on incident radiation, and convert[[s]] the conversion results into electric charges.

Claim 10. (currently amended): A radiation image pick-up method according to claim 8, ~~characterized in that the each~~ wherein selection of the signal reading wirings is ~~selected~~ based on the operation ~~control~~ of the semiconductor element by the scanning circuit according to a dosage of the radiation.

Claim 11. (currently amended): A radiation image pick-up method according to claim 9, ~~characterized in that~~ wherein each of the ~~said~~ pixels includes semiconductor elements connected to the plurality of through each of said signal reading wirings, and at least one of the semiconductor elements is a source follower, and the scanning circuit ~~performs the operation control of~~ operates the semiconductor element such that, when the dosage of the radiation is small in the radiographing, the signal reading wiring connected to the source follower is selected.

Claim 12. (currently amended): A radiation image pick-up system, ~~characterized by~~ comprising:

a radiation image pick-up device comprising a plurality of pixels disposed in a matrix, each of the pixels including ~~at least one~~ a photoelectric conversion element for converting incident radiation into electric charges; ~~and~~ a signal output circuit for outputting signals from said pixels[[,]]; ~~and said radiation image pick-up device being wherein[[,]] a plurality of signal reading wirings through which said pixels and said signal output circuit are connected to each other are provided for each pixel and in that each of the pixels includes a semiconductor element[[s]] connected to each~~ a respective one of said signal reading wirings, a respective one of said signal reading wirings being provided for each row of the pixels arranged along a first direction of the matrix, and

radiation generation means for applying radiation;

selection means for selecting any one of ~~the~~ a plurality of radiographing modes of said radiation image pick-up device according to magnitude of a dosage of radiation; and

control means for controlling the application of the radiation by said radiation generation means and drive of said radiation image pick-up device based on the selection by said selection means,

wherein said semiconductor element[[s]] ~~are~~ is selected by ~~an operation control of means of~~ said control means, and

~~said the~~ the signal reading wiring through which said semiconductor element is connected is selected based on the operation ~~control~~ of said semiconductor element[[s]] by said control means.

Claim 13. (currently amended): A radiation image pick-up system according to claim 12, further comprising a photographing switch with which any one of ~~the~~ a plurality of radiographing modes is selectable based on an input by an operator, ~~said radiation image pick-up system being characterized in that~~ wherein said selection means selects any one of the radiographing modes based on input made with said photographing switch.

Claim 14. (currently amended): A radiation image pick-up system according to claim 13, ~~characterized in that~~ wherein said photographing switch is adapted to be switched ON in[[to]] a plurality of strokes corresponding to the number of said signal reading wirings, and the respective strokes correspond to an increase in dosage of radiation in ascending order.

Claim 15. (currently amended): A radiation image pick-up device according to claim 1, ~~characterized in that~~ wherein said plurality of pixels are arranged on a substrate.

Claim 16. (canceled).

Claim 17. (currently amended): A radiation image pick-up device according to claim 1, ~~characterized in that~~ wherein at least one of said semiconductor elements is a switch element for transferring a signal based on the electric charge generated by a photoelectric conversion by said photoelectric conversion element.

Claim 18. (currently amended): A radiation image pick-up device according to

claim 4, ~~characterized in that~~ wherein said source follower is a switch element for transferring a signal produced by amplifying the electric charge generated by a photoelectric conversion by said photoelectric conversion element.

Claim 19. (currently amended): A radiation image pick-up device according to claim 4, ~~characterized in that~~ wherein said scanning circuit ~~performs the operation control of~~ operates said semiconductor element such that, when the dosage of the radiation is small in ~~the a~~ radiographing performed using said device, said signal reading wiring connected to said source follower is selected.